

Appl. No. 10/024,506
Amdt. dated November 25, 2003
Reply to Office Action of August 26, 2003

AMENDMENTS TO THE SPECIFICATION:

Please replace original paragraph 0037 with the following new paragraph 0037, amended as indicated.

G2

[0037] Accordingly, as shown by way of example in Fig. 9, the device 100 can include a reference electrode 132 positioned near to or adjacent the active electrode 104, so that the reference electrode 132 is in the electric field that is generated between the active electrode 104 and auxiliary electrode 106. This reference electrode 132 is electrically coupled to the power supply. However, the reference electrode can be integral with and electrically isolated from either the active electrode or the auxiliary electrode. For example, the tip portion of probe 120 of the active electrode 104 (See Figs. 5 and 6) can have the reference electrode adjacent to the active electrode on one side only or side by side on the same side, provided they are electrically isolated (from active electrode). Because the reference electrode 132 is positioned close to the active electrode 104 and thus, only a slight amount of the patient's skin is present between these electrodes when the device 100 is placed on the patient's skin 130, there is only a negligible IR drop between the active electrode 104 and the reference electrode 132 due to the patient's skin 130. Furthermore, since the IR drop is negligible, variations in skin conditions have little overall effect on the magnitude of this IR drop, thus ensuring that the correct electrical potential is being applied to the active electrode 104 during the measurement. For example, the probe portion 120 of the active electrode 104 (see Figs. 5 and 6) can have the glucose oxidase coating on one side only, and an electrically isolated conductive coating on the other side to enable that side of the active electrode 104 to act as the reference electrode. Additionally, if necessary, the amount of electrical potential applied to active electrode 104 can be adjusted with reference to the reference electrode 132.